

Problems on Trains MCQ Question Answer

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Question: 1. A train is 100 meter long and is running at the speed of 30 km per hour. Find the time it will take to pass a man standing at a crossing.

- Option A. 10 seconds
- Option B. 12 seconds
- Option C. 14 seconds
- Option D. 16 seconds

Question: 2. A train is moving at a speed of 132 km/hour. If the length of the train is 110 meters, how long will it take to cross a railway platform 165 meters long.

- Option A. 7 second
- Option B. 7.5 second
- Option C. 8 second
- Option D. 8.5 second

Question: 3. In what time will a train 100 meters long cross an electric pole, if its speed is 144 km/hr

- Option A. 5 seconds
- Option B. 4.5 seconds
- Option C. 3 seconds
- Option D. 2.5 seconds

Question: 4. How long does a train 110 meters long running at the speed of 72 km/hour take to cross a bridge 132 meters in length?

- Option A. 15 seconds
- Option B. 12.1 seconds
- Option C. 10 seconds
- Option D. 8.1 seconds

Question: 5. A train is 360 meter long is running at a speed of 45 km/hour. In what time will it pass a bridge of 140 meter length.

- Option A. 20 seconds
- Option B. 30 seconds
- Option C. 40 seconds
- Option D. 50 seconds

Question: 6. A train running at the speed of 60 km/hr crosses a pole in 9 seconds. Find the length of the train.

- Option A. 150 meter
- Option B. 145 meter
- Option C. 140 meter
- Option D. 135 meter

Question: 7. Length of a train is 130 meters and speed of train is 45 km/hour. This train can pass a bridge in 30 seconds, then find the length of the bridge.

- Option A. 230 meters
- Option B. 235 meters
- Option C. 240 meters
- Option D. 245 meters

Question: 8. Speed of a goods train is 72 km/hr. This train crosses a 250 meter platform in 26 seconds. Then find the length of goods train.

- Option A. 250 meters
- Option B. 260 meters
- Option C. 270 meters
- Option D. 280 meters

Question: 9. A 300 meter long train crosses a platform in 39 seconds while it crosses a signal pole in 18 seconds. What is the length of the platform.

- Option A. 310 meter
- Option B. 335 meter
- Option C. 345 meter
- Option D. 350 meter

Question: 10. A train speeds past a pole in 15 seconds and a platform 100 meter long in 25 seconds. What is length of the train ?

- Option A. 140 meter
- Option B. 145 meter
- Option C. 150 meter
- Option D. 155 meter

Question: 11. Two trains running in opposite directions cross a man standing on the platform in 27 seconds and 17 seconds respectively and they cross each other in 23 seconds. The ratio of their speeds is ?

- Option A. 1:3
- Option B. 3:2
- Option C. 3:5
- Option D. 3:7

Question: 12. Two trains of equal length are running on parallel lines in the same direction at 46 km/hr and 36 km/hr. The faster train passes the slower train in 36 seconds. The length of each train is ?

- Option A. 40 meter
- Option B. 45 meter
- Option C. 50 meter
- Option D. 55 meter

Question: 13. A 270 metres long train running at the speed of 120 kmph crosses another train running in opposite direction at the speed of 80 kmph in 9 seconds. What is the length of the other train?

- Option A. 220 meter
- Option B. 225 meter
- Option C. 230 meter
- Option D. 235 meter

Question: 14. Two trains 140 m and 160 m long run at the speed of 60 km/hr and 40 km/hr respectively in opposite directions on parallel tracks. The time which they take to cross each other, is

- Option A. 9.8 seconds
- Option B. 10.8 seconds
- Option C. 11.8 seconds
- Option D. 12.8 seconds

Question: 15. Two trains are running at 40 km/hr and 20 km/hr respectively in the same direction. Fast train completely passes a man sitting in the slower train in 5 seconds. What is the length of the fast train ?

- Option A. $27\frac{7}{9}$
- Option B. $28\frac{7}{9}$
- Option C. $29\frac{7}{9}$
- Option D. $30\frac{7}{9}$

Question: 16. Two trains are running in opposite directions in the same speed. The length of each train is 120 meter. If they cross each other in 12 seconds, the speed of each train (in km/hr) is

- Option A. 30 Km/hr
- Option B. 36 Km/hr
- Option C. 80 Km/hr
- Option D. 90 Km/hr

Question: 17. A train, 800 meter long is running with a speed of 78 km/hr. It crosses a tunnel in 1 minute. What is the length of the tunnel ?

- Option A. 650 meter
- Option B. 555 meter
- Option C. 500 meter
- Option D. 458 meter

Question: 18. How many seconds will a 500 meter long train take to cross a man walking with a speed of 3 km/hr in the direction of the moving train if the speed of the train is 63 km/hr

- Option A. 25 Seconds
- Option B. 28 Seconds
- Option C. 30 Seconds
- Option D. 35 Seconds

Question: 19. A jogger running at 9 kmph alongside a railway track is 240 metres ahead of the engine of a 120 metre long train running at 45 kmph in the same direction. In how much time will the train pass the jogger ?

- Option A. 30 seconds
- Option B. 32 seconds
- Option C. 34 seconds
- Option D. 36 seconds

Question: 20. Two trains 140 metre and 160 metre long run at the speed of 60 km/hr and 40 km/hr respectively in opposite direction on parallel tracks. What time these will take to cross each other ?

- Option A. 10.7 Seconds
- Option B. 10.8 Seconds
- Option C. 10.9 Seconds

Option D. 11.8 Seconds

Question: 21. A train overtakes two persons who are walking in the same direction in which the train is going, at the rate of 2 kmph and 4 kmph and passes them completely in 9 and 10 seconds respectively. Find the length of train ?

Option A. 45 meter

Option B. 50 meter

Option C. 55 meter

Option D. 60 meter

Question: 22. A train passes a station platform in 36 seconds and a man standing on the platform in 20 seconds. If the speed of the train is 54 km/hr, what is the length of the platform?

Option A. 120 meter

Option B. 240 meter

Option C. 300 meter

Option D. None of these

Question: 23. Two trains running in opposite directions cross a man standing on the platform in 27 seconds and 17 seconds respectively and they cross each other in 23 seconds. The ratio of their speeds is

Option A. 1 : 3

Option B. 3 : 2

Option C. 3 : 4

Option D. None of these

Question: 24. The length of the bridge, which a train 130 metres long and travelling at 45 km/hr can cross in 30 seconds, is

Option A. 200 meter

Option B. 225 meter

Option C. 245 meter

Option D. 250 meter

Question: 25. A train 125 m long passes a man, running at 5 km/hr in the same direction in which the train is going, in 10 seconds. The speed of the train is

Option A. 45 km/hr

Option B. 50 km/hr

Option C. 54 km/hr

Option D. 55 km/hr

Question: 26. A train running at the speed of 60 km/hr crosses a pole in 9 seconds. What is the length of the train?

Option A. 120 metres

Option B. 180 metres

Option C. 324 metres

Option D. 150 metres

Question: 27. A jogger running at 9 kmph alongside a railway track in 240 metres ahead of the engine of a 120 metres long train running at 45 kmph in the same direction. In how much time will the train pass the jogger?

Option A. 3.6 sec

Option B. 18 sec

Option C. 36 sec

Option D. 72 sec

Question: 28. Two trains are moving in opposite directions @ 60 km/hr and 90 km/hr. Their lengths are 1.10 km and 0.9 km respectively. The time taken by the slower train to cross the faster train in seconds is

Option A. 36

Option B. 45

Option C. 48

Option D. 49

Question: 29. A train 360 m long is running at a speed of 45 km/hr. In what time will it pass a bridge 140 m long?

Option A. 40 sec

Option B. 42 sec

Option C. 45 sec

Option D. 48 sec

Question: 30. Two trains of equal length are running on parallel lines in the same direction at 46 km/hr and 36 km/hr. The faster train passes the slower train in 36 seconds. The length of each train is

Option A. 50 m

Option B. 72 m

Option C. 80 m

Option D. 82 m

1	B	As we need to get answer in seconds, so never forget to convert speed into meter per second. Speed = 30 km/hr = $30 \times \frac{5}{18}$ m/sec = $\frac{25}{3}$ m/sec Distance = length of train = 100 meter Required time = $\frac{\text{Distance}}{\text{Speed}}$ 2
2	B	As we need to calculate answer in seconds, so first convert speed into meter/sec. we know 1 km/hr = $1 \times (\frac{5}{18})$ m/sec So, Speed = $132 \times (\frac{5}{18}) = \frac{110}{3}$ m/sec Distance need to be covered in passing the platform = Length of train + length of platform = 110 + 165 = 275 meters Time = $\frac{\text{Distance}}{\text{Speed}}$ 2
3	D	First convert speed into m/sec Speed = $144 \times (\frac{5}{18}) = 40$ m/sec Time = $\frac{\text{Distance}}{\text{speed}}$ = $\frac{100}{40} = 2.5$ seconds
4	B	Speed = 72 km/hour = $72 \times (\frac{5}{18})$ m/sec = 20 m/sec Total distance to be covered = 110+132 = 142 meters Time = $\frac{\text{Distance}}{\text{Speed}}$ = $\frac{242}{20}$ = 12.1 seconds
5	C	Speed = 45 Km/hr = $45 \times (\frac{5}{18})$ m/sec = $\frac{25}{2}$ m/sec Total distance = 360+140 = 500 meter Time = $\frac{\text{Distance}}{\text{speed}}$ 2
6	A	Speed = $60 \times (\frac{5}{18})$ m/sec = $\frac{50}{3}$ m/sec Length of Train(Distance) = Speed * Time 2
7	D	Let the length of bridge is X Speed of train is = $45 \times (\frac{5}{18})$ m/sec = $\frac{25}{2}$ m/sec Time = 30 seconds Total distance = 130+x We know Speed = $\frac{\text{distance}}{\text{time}}$ so, $130+x = \frac{25}{2} \times 30 \Rightarrow 2(130+x) = 750 \Rightarrow x = 245$ meters So length of the bridge is 245 meters
8	C	First convert speed from km/hr to m/sec So, Speed = $72 \times (\frac{5}{18}) = 20$ m/sec Time = 26 seconds Let the length of the train be x meters. We know, Distance = Speed*Time. [you can remember this formula as remembering DUST = D*ST, Distance=Speed*Time] $x+250 = 20 \times 26$ $\Rightarrow x = 270$ meters So length of the goods train is 270 meter View Answer
9	D	Speed = $\frac{\text{Distance}}{\text{time}} = \frac{300}{18} = \frac{50}{3}$ m/sec Let the length of the platform be x meters then Distance = $\text{Speed} \times \text{Time} + 300 = \frac{50}{3} \times 39 + 300 = 1950 \Rightarrow x = 350$ meters
10	C	Let the length of the train is x meter and Speed of the train is y meter/second Then $\frac{x}{y} = 15$ [because distance/speed = time] $\Rightarrow y = \frac{15}{x}$ $\Rightarrow \frac{x+100}{25} = \frac{x}{15} \Rightarrow x = 150$ meters So length of the train is 150 meters
11	B	Let the speeds of the two trains be x m/sec and y m/sec respectively. Then, length of the first train = 27x metres, Length of the second train = 17y metres. [because distance = speed*time] $\frac{27x+17y}{x+y} = 23 \Rightarrow 27x = 17y = 23x + 23y \Rightarrow 4x = 6y \Rightarrow \frac{x}{y} = \frac{6}{4}$ So ratio of the speeds of train is 3:2

12	C	Let the length of each train is x meter Distance will be $x+x = 2x$ Relative Speed = $46-36 = 10$ km/hr $= 10*(5/18) = 25/9$ m/sec Distance = Speed*Time $2x = \frac{25}{9} \times 362x = 100 \Rightarrow x = 50$ So length of both the trains are 50 meters
13	C	As trains are running in opposite directions so their relative speed will get added So, Relative speed = $120 + 80 = 200$ kmph $= 200*(5/18) = 500/9$ m/sec Let the length of other train is x meter then $x+2709=5009 \Rightarrow x+270=500 \Rightarrow x=230$ So the length of the train is 230 meters
14	B	Relative Speed = $60+40 = 100$ kmph $= 100*(5/18) = 250/9$ m/sec Distance = $140+160 = 300$ meters Time = Distance/Speed $300 \times \frac{9}{250} = \frac{54}{5} = 10.8 \text{ seconds}$ So the time trains will take to cross each other will be 10.8 seconds
15	A	As Trains are moving in same direction, So, Relative Speed = $40-20 = 20$ kmph $= 20*(5/18) = 50/9$ m/sec Length of Train= Speed * Time $\text{Length} = \frac{50}{9} \times 5 = \frac{250}{9} = 27\frac{7}{9}$
16	B	Distance covered = $120+120 = 240$ m Time = 12 s Let the speed of each train = x. Then relative velocity = $x+x = 2x$ $2x = \text{distance/time} = 240/12 = 20 \text{ m/s}$ Speed of each train = $x = 20/2 = 10$ m/s $= 10*18/5 \text{ km/hr} = 36 \text{ km/hr}$
17	C	Let length of tunnel is x meter Distance = $800+x$ meter Time = 1 minute = 60 seconds Speed = $78 \text{ km/hr} = 78*5/18 \text{ m/s} = 65/3 \text{ m/s}$ Distance = Speed*Time $\Rightarrow 800 + x = \frac{65}{3} \times 60 \Rightarrow 800 + x = 20 \times 65 = 1300 \Rightarrow x = 1300 - 800 = 500$ So the length of the tunnel is 500 meters.
18	C	Relative Speed = $63-3 = 60$ Km/hr $= 60 *(5/18) = 50/3$ m/sec Time taken to pass the man will be $500 \times \frac{3}{50} = 30 \text{ sec}$
19	D	Speed of train relative to jogger = $(45-9) = 36$ kmph $= 36*(5/18) = 10$ m/sec Distance to cover = $240 + 120 = 360$ metres Time = Distance/Speed So, $\text{Time} = \frac{360}{10} = 36 \text{ Seconds}$
20	B	Relative Speed = $60+40 = 100$ Kmph $= 100*(5/18) = 250/9$ m/sec Distance to be covered = $140 + 160 = 300$ metres Time = Distance/Speed $\text{Time} = 300 \times \frac{9}{250} = \frac{54}{5} = 10.8 \text{ Seconds}$
21	B	First person speed = $2*(5/18) = 5/9$ m/sec Second person speed = $4*(5/18) = 10/9$ m/sec Let the length of train is x metre and speed is y m/sec then, $\frac{x}{5} = 9 \Rightarrow 9y - 5 = x \Rightarrow 9y - x = 5 \dots \left(i \right)$ Also, $\frac{x}{y - \frac{10}{9}} = 1090y - 9x = 100 \dots \left(ii \right)$ form $\left(i \right)$ and $\left(ii \right)$, we get, $x = 50$ So length of train is 50 metre

22	B	Speed = $\left(54 \times \frac{5}{18}\right)$ m/sec = 15m/sec. Length of the train = (15×20) m = 300 m. Let the length of the platform be x metres. Then, $\frac{x + 300}{36} = 15 \Rightarrow x$
23	B	Let the speeds of the two trains be x m/sec and y m/sec respectively. Then, length of the first train = 27x metres, and length of the second train = 17y metres. $\therefore \frac{27x+17y}{x+y} = 23 \Rightarrow 27x + 17y = 23x + 23y \Rightarrow 4x = 6y \Rightarrow \frac{x}{y} = \frac{3}{2}.$
24	C	Speed = $\left(45 \times \frac{5}{18}\right)$ m/sec = $\left(\frac{25}{2}\right)$ m/sec. Time = 30 sec. Let the length of bridge be x metres. Then, $\frac{130 + x}{30} = \frac{25}{2} \Rightarrow 2(130 + x) = 750 \Rightarrow x = 245$
25	B	Speed of the train relative to man = $\left(\frac{125}{10}\right)$ m/sec = $\left(\frac{25}{2}\right)$ m/sec. = $\left(\frac{25}{2} \times \frac{18}{5}\right)$ km/hr = 45 km/hr. Let the speed of the train be x km/hr. Then, relat:
26	D	Speed = $\left(60 \times \frac{5}{18}\right)$ m/sec = $\left(\frac{50}{3}\right)$ m/sec. Length of the train = (Speed x Time) = $\left(\frac{50}{3} \times 9\right)$ m = 150 m.
27	C	Speed of train relative to jogger = $(45 - 9)$ km/hr = 36 km/hr. = $\left(36 \times \frac{5}{18}\right)$ m/sec = 10 m/sec. Distance to be covered = $(240 + 120)$ m =
28	C	Relative speed = $(60 + 90)$ km/hr = $\left(150 \times \frac{5}{18}\right)$ m/sec = $\left(\frac{125}{3}\right)$ m/sec. Distance covered = $(1.10 + 0.9)$ km = 2 km = 2000 m. Required time = (
29	A	Formula for converting from km/hr to m/s: X km/hr = $\left(X \times \frac{5}{18}\right)$ m/s. Therefore, Speed = $\left(45 \times \frac{5}{18}\right)$ m/sec = $\frac{25}{2}$ m/sec. Total distance to be covered = $\left(36\right.$
30	A	Let the length of each train be x metres. Then, distance covered = 2x metres. Relative speed = $(46 - 36)$ km/hr = $\left(10 \times \frac{5}{18}\right)$ m/sec = $\left(\frac{25}{9}\right)$ m/sec $\therefore \frac{2x}{\frac{25}{9}} = 36$